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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/502,258

02/11/2000

Christoph Wuersch

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02/12/2003

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EXAMINER

NI, SUHAN

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/502,258

Applicant(s)

WUERSCH, CHRISTOPH

Examiner

Suhan Ni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/2/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission for RCE filed on 01/02/2003 has been entered.
2. This communication is responsive to the amendment (C) filed on 01/02/2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US-5,796,848) in view of Martin et al. (US-6,069,963).

Regarding claim 1, Martin discloses a hearing aid comprising: a microphone (1) and an ADC (7), wherein the microphone is encapsulated in an electromagnetic shielding case (6) forming a shielded microphone system unit and the ADC is mounted within the electromagnetic shielding case. But Martin does not clearly teach the ADC is mounted on an outside of the electromagnetic shielding case as claimed. In a later patent, Martin et al. disclose a similar structured hearing aid comprising microphones and ADC for obtaining acoustic signals for digital signal processing, wherein microphones can be optionally shielded alone, or without ADC

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(col. 4, line 66 to col. 5, line 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide desirable shielding case for microphone alone taught by Martin et al. for the hearing aid as an alternate choice, for providing the shielded microphone module for many different applications.

Regarding claim 3, Martin further discloses the hearing aid, wherein the microphone system (1) and the ADC are detachably combined in modular manner (Fig. 2).

Regarding claims 4 and 6-7, Martin does not clearly teach at least two microphone inputs and further signal processing as claimed. In the later patent, Martin et al. further disclose the similar structured hearing aid comprising two microphones (1, 2) inherently having desirable characteristics as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide at least two microphones and signal processing channels taught by Martin et al. for the hearing aid, in order to enhance the performance of the hearing aid, such as directional capability.

4. Claims 2-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US-5,796,848) in view of Martin et al. (US-6,069,963) as applied to claims above, and further in view of Husung (US-5,809,151).

Regarding claims 2-3 and 5, neither Martin nor Martin et al. clearly disclose the ADC being encapsulated in a shielding case as claimed. Husung discloses an electromagnetic shielding case (15) for circuitry components of a hearing aid (Fig. 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide the electromagnetic shielding case taught by Husung for circuitry components, such as ADC of a hearing aid as an alternate choice for further reducing electromagnetic noises.

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Response to Amendment

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

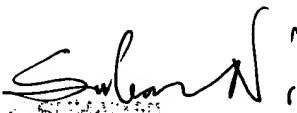
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is **(703)-308-9322**, and the number for fax machine is **(703)-305-9508**. If it is necessary, the examiner's supervisor, **Curtis Kuntz**, can be reached at **(703) 305-4708**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is **(703) 305-3900**.

Suhan Ni
Patent Examiner
A.U. 2643, USPTO.

02/10/2003


SUHAN NI
PATENT EXAMINER